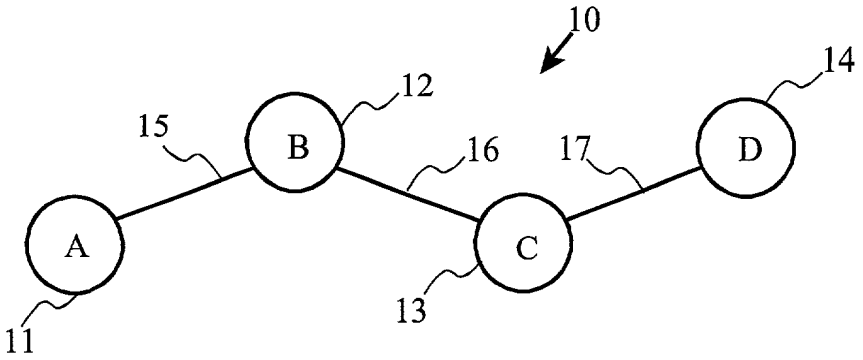


Figure 1

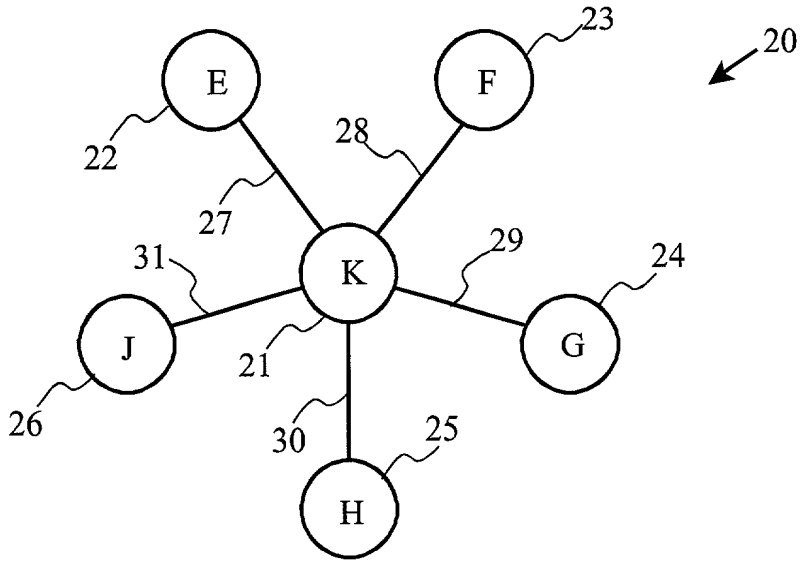
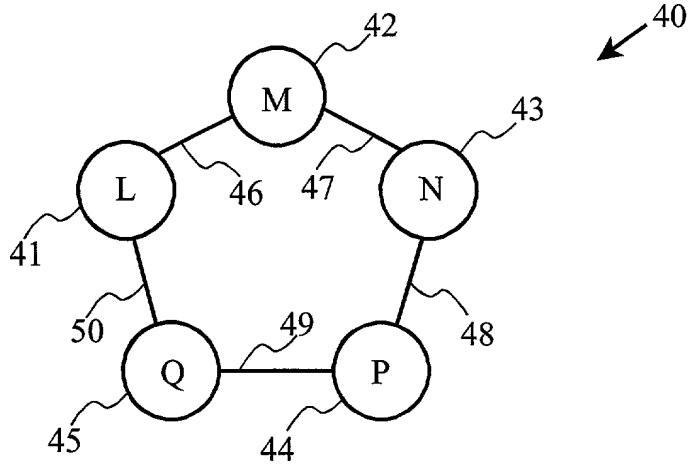


Figure 2



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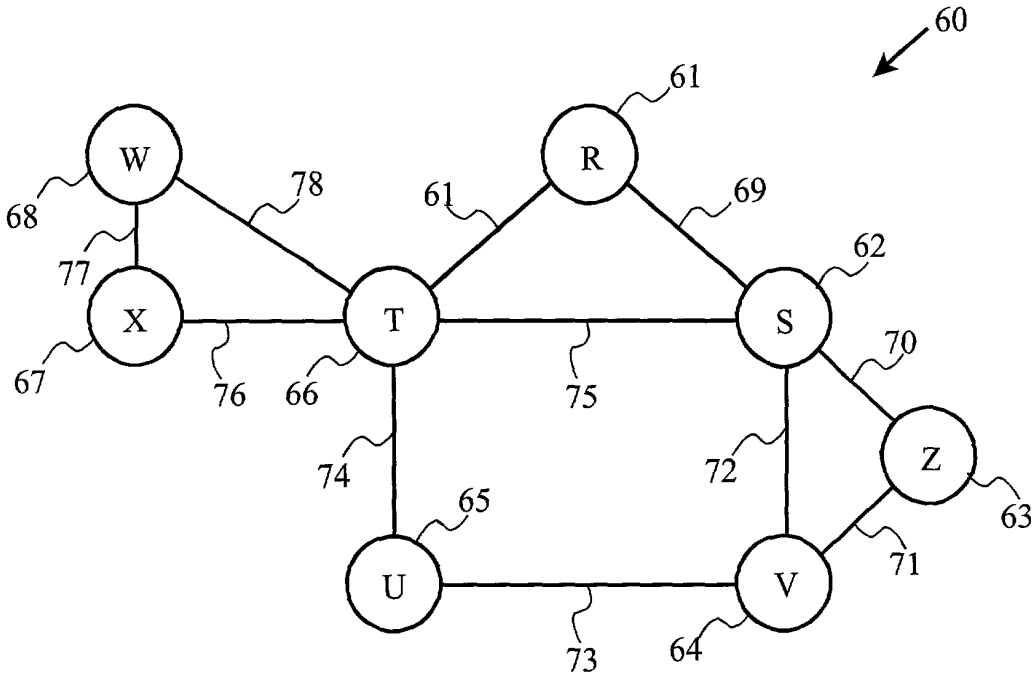

Figure 4

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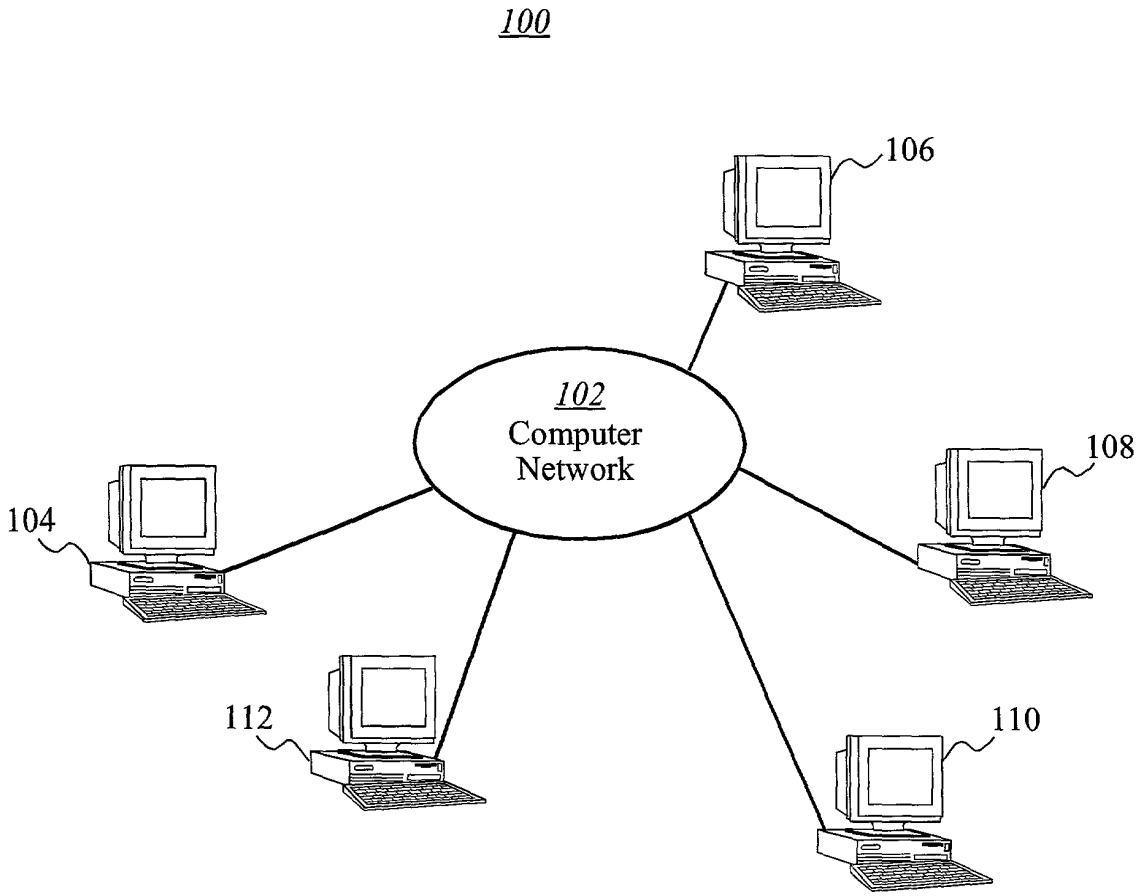

Figure 5

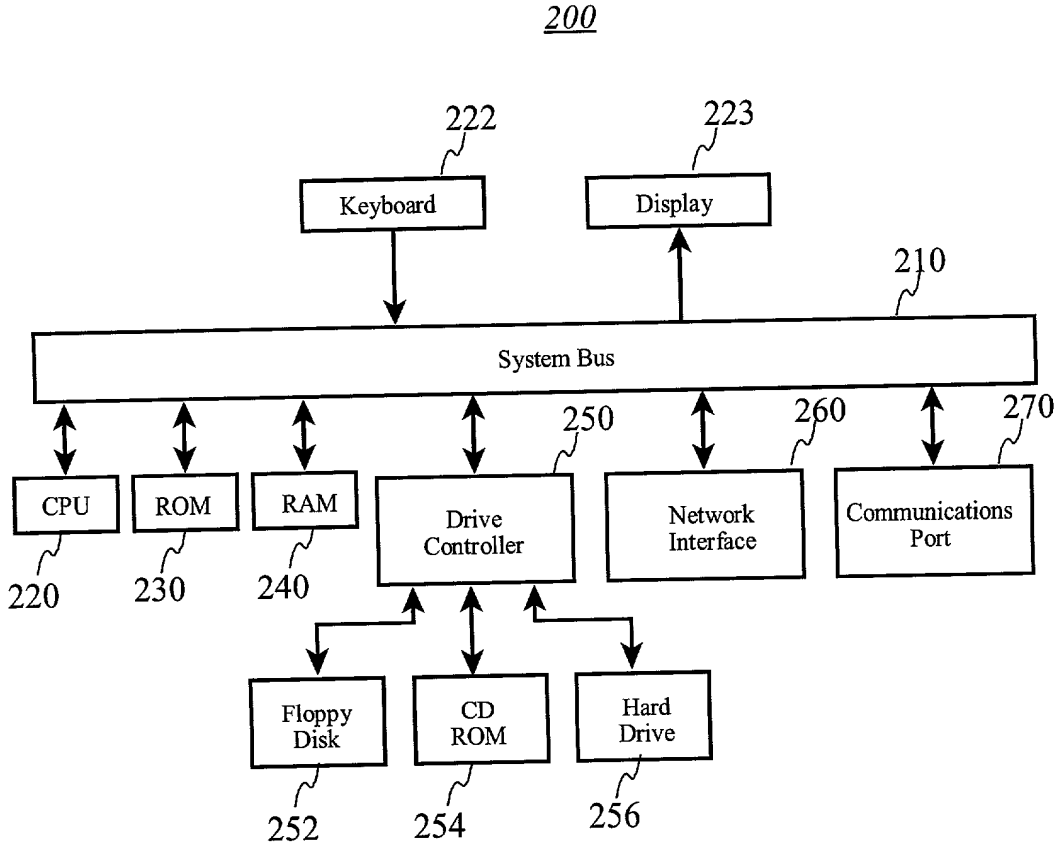
200
222
223
Keyboard
Display
210
System Bus
250
260
270
CPU
ROM
RAM
Drive Controller
Network Interface
Communications Port
220
230
240
Floppy Disk
CD ROM
Hard Drive
252
254
256

Figure 6

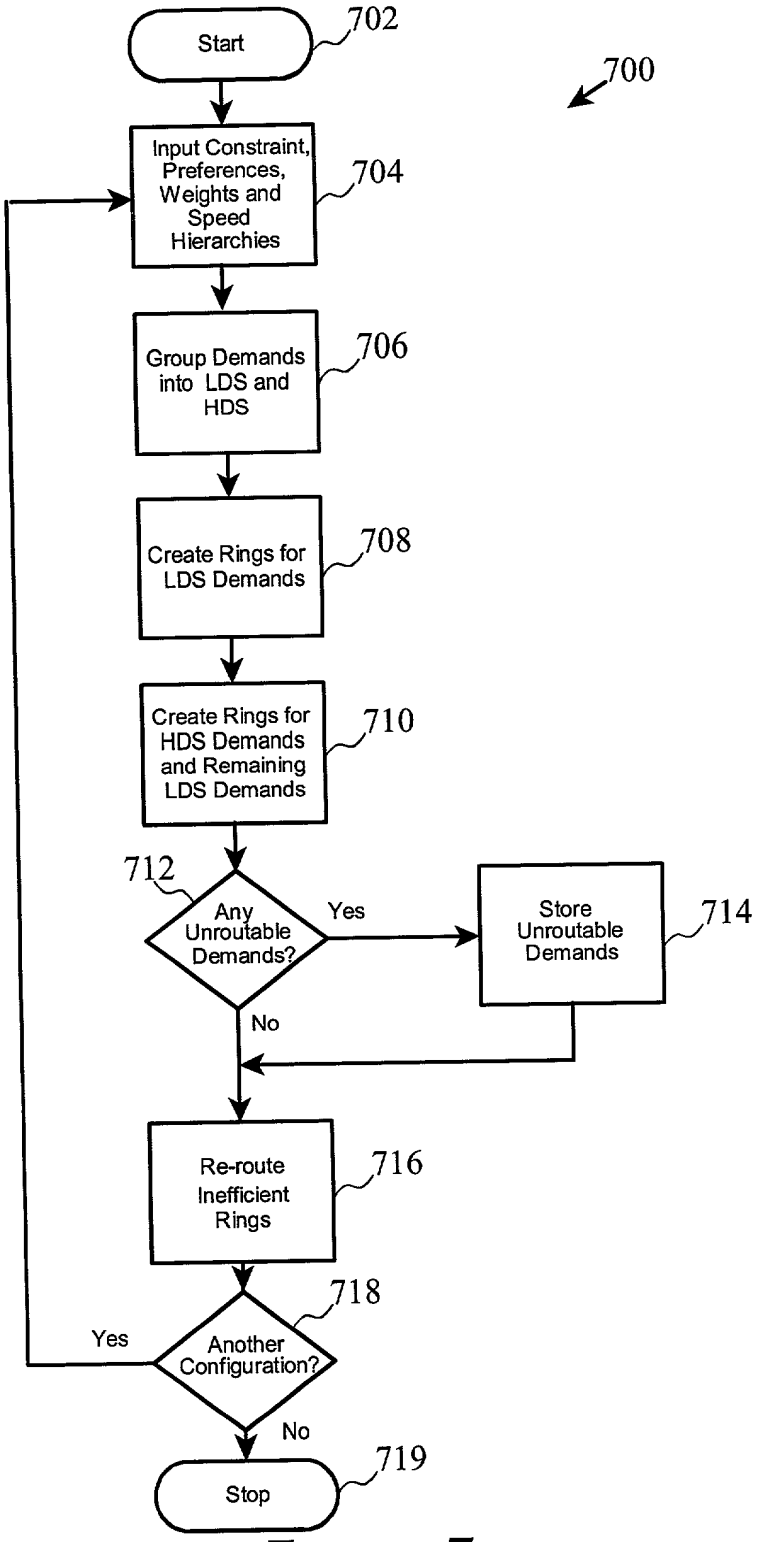
Start
702
700
Input Constraint, Preferences, Weights and Speed Hierarchies
704
Group Demands into LDS and HDS
706
Create Rings for LDS Demands
708
Create Rings for HDS Demands and Remaining LDS Demands
710
712
Any Unroutable Demands?
Yes
Store Unroutable Demands
714
No
Re-route Inefficient Rings
716
718
Yes
Another Configuration?
No
Stop
719

Figure 7

Express Mail Label No. EV 045 520 290 US

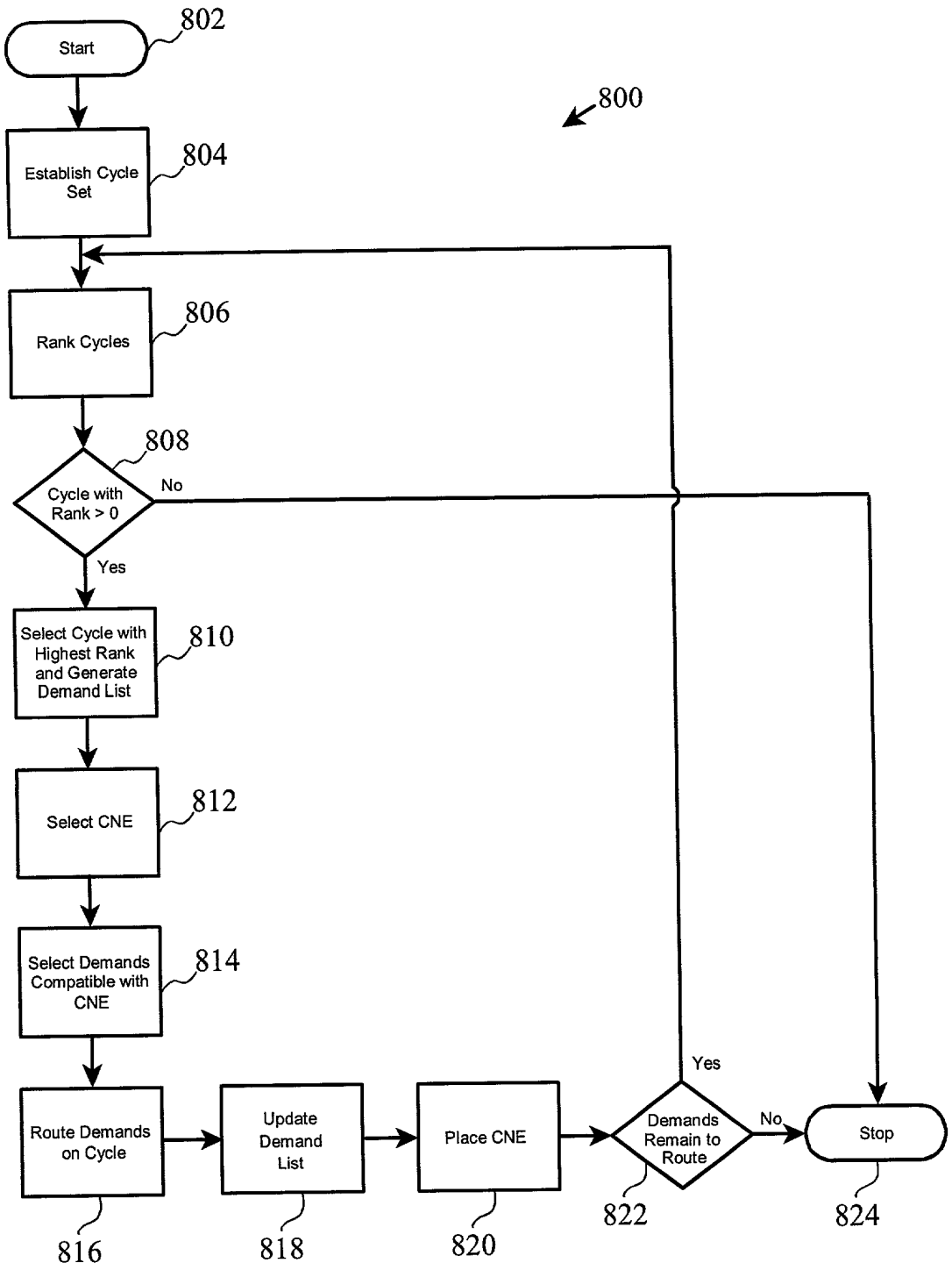

Figure 8

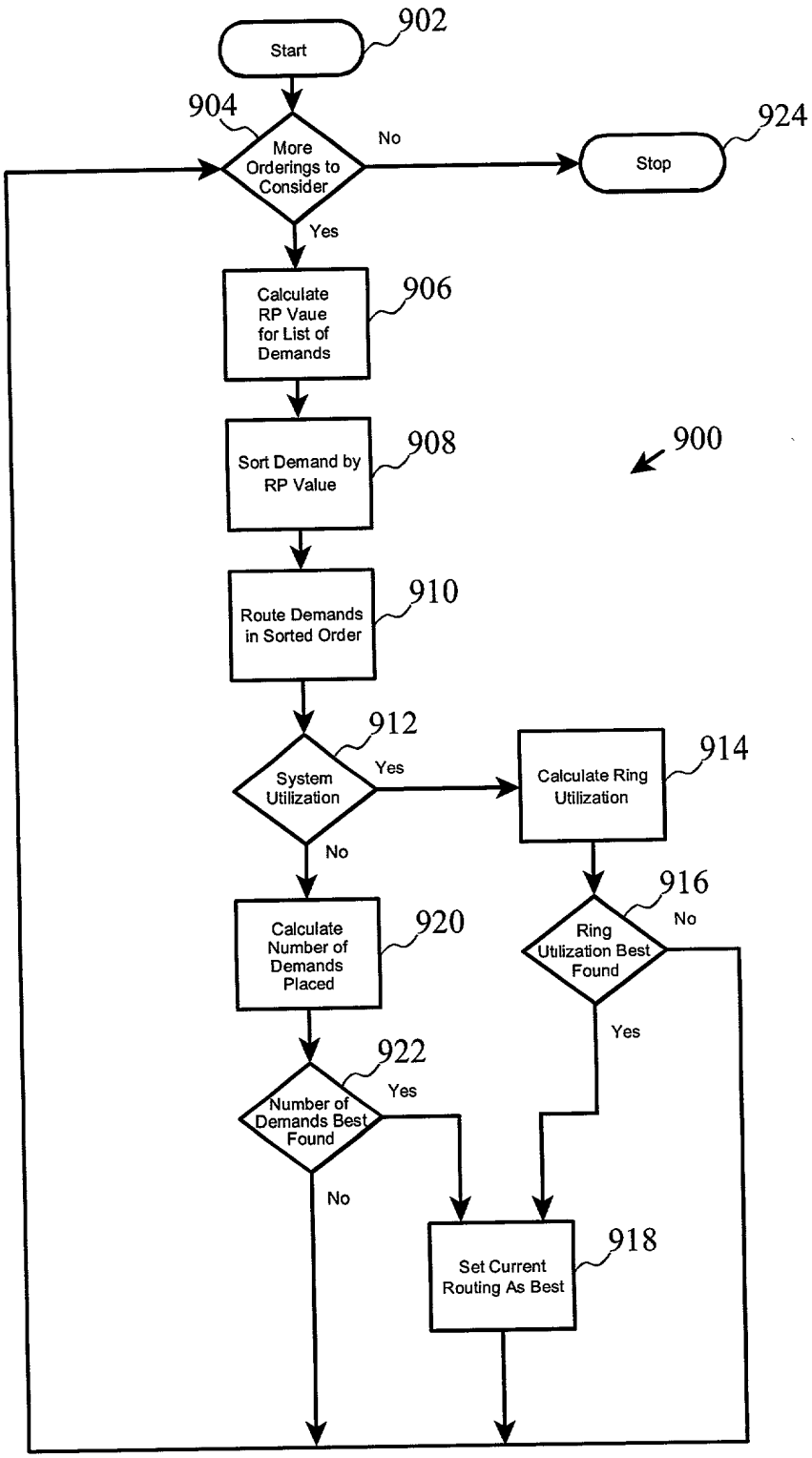

Figure 9

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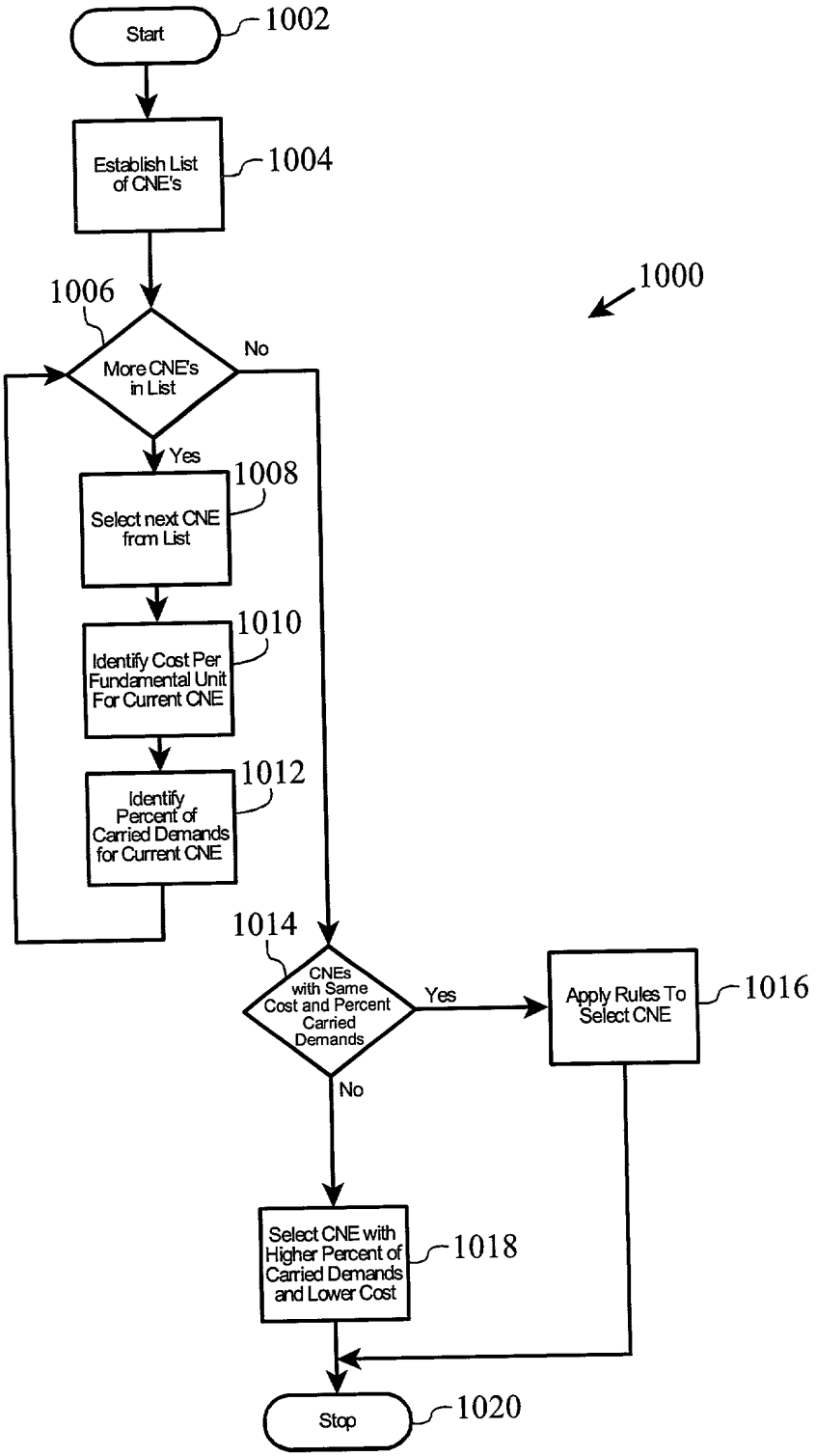
Start
1002
Establish List of CNE's
1004
1000
1006
More CNE's in List
No
Yes
1008
Select next CNE from List
1010
Identify Cost Per Fundamental Unit For Current CNE
1012
Identify Percent of Carried Demands for Current CNE
1014
CNEs with Same Cost and Percent Carried Demands
Yes
Apply Rules To Select CNE
1016
No
Select CNE with Higher Percent of Carried Demands and Lower Cost
1018
Stop
1020

Figure 10

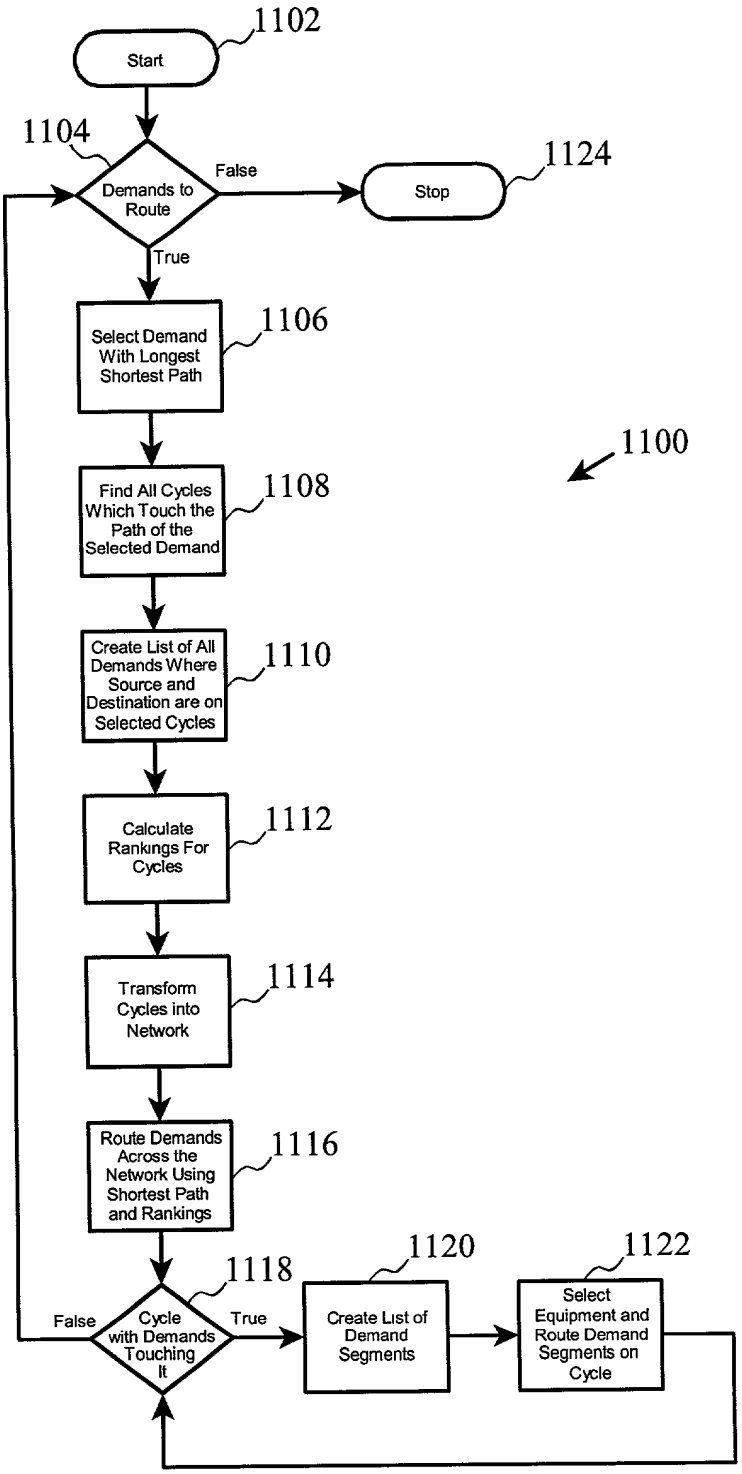
1102
Start
1104
Demands to Route
False
1124
Stop
True
Select Demand With Longest Shortest Path
1106
1100
Find All Cycles Which Touch the Path of the Selected Demand
1108
Create List of All Demands Where Source and Destination are on Selected Cycles
1110
Calculate Rankings For Cycles
1112
Transform Cycles into Network
1114
Route Demands Across the Network Using Shortest Path and Rankings
1116
1118
False
Cycle with Demands Touching It
True
1120
Create List of Demand Segments
1122
Select Equipment and Route Demand Segments on Cycle

Figure 11

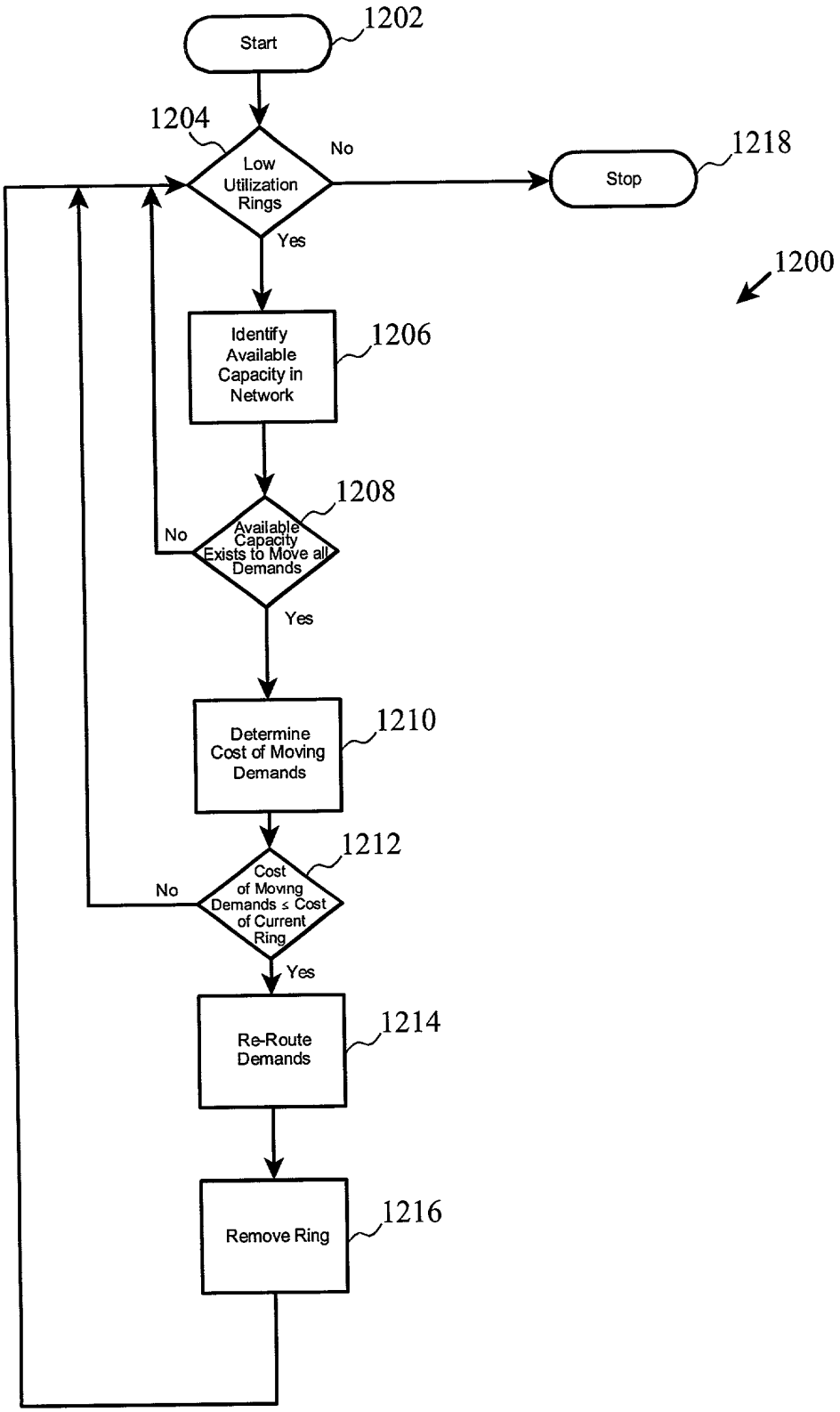
Start
1202
1204
Low Utilization Rings
No
Stop
1218
Yes
1200
Identify Available Capacity in Network
1206
1208
No
Available Capacity Exists to Move all Demands
Yes
Determine Cost of Moving Demands
1210
1212
No
Cost of Moving Demands ≤ Cost of Current Ring
Yes
Re-Route Demands
1214
Remove Ring
1216

Figure 12